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**FAX TRANSMITTAL SHEET**

**DATE:** November 10, 2008

**TO:** Laboratory Director and QA Manager

**FROM:** Steven D. Baker, Assistant Bureau Chief  
State Laboratory Services

**Subject:** Information Update #101

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**NOTE:** If any of the pages are missing, please call 1-800-952-0374, (602) 364-0734 or (602) 364-0733.

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CONTACTING:***

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***Leadership for a Healthy Arizona***



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**Information Update**

**November 10, 2008**

**Update #101**

1. The Arizona Department of Environmental Quality has officially withdrawn the Drinking Water qualifiers, 10/23/2001. For drinking water analyses, the labs can now use the qualifiers from the standard Arizona Data Qualifiers, Rev 3.0, dated 9/20/07. It is important that labs **MUST** be confident in the results reported, that they are scientifically valid and defensible, and must meet standards for reporting data for compliance purposes. If the lab is not comfortable that the reported data can be used for compliance, then the samples should be re-analyzed and re-sampled if necessary.

2. **ADHS Distillation Requirements for Ammonia and Fluoride in Wastewater:**

The distillation requirements specified in the Information Update 100 are accurate; however, we forgot to include 350.1, Rev. 2.0 for ammonia. So we are repeating ADHS distillation requirements with a slight difference in verbiage to make it easier for comprehension.

- a) **Fluoride analysis,**

- i) SM Methods 4500-F-C, 4500-F-D and Hach Method 8029 (equivalent to 4500-F-D) require the distillation procedure 4500-F-B to be performed first;  
OR  
Comparability Study can be performed in lieu of distillation;
- ii) EPA Methods 300.0, Revision 2.1 and 300.1, Revision 1.0 do not require prior distillation;
- iii) SM 4500-F-E, Complexone Method, has a distillation procedure as part of the method, which must be performed first.

- b) **Ammonia analysis,**

- i) SM Methods 4500-NH3-C and 4500-NH3-G require the distillation procedure 4500-NH3-B to be performed first;  
OR  
Comparability Study can be performed in lieu of distillation;

- ii) SM Method 4500-NH3-D does not require prior distillation when the sample concentration is between 0.03-1400 mg NH3-N/L;
- iii) SM Method 4500-NH3-E does not require prior distillation;
- iv) EPA Method 350.1, Revision 2 includes the distillation procedure within the referenced method, which must be performed first OR Comparability Study can be performed in lieu of distillation.

c) Comparability Study:

Until ADHS receives further written instruction from Region IX regarding the distillation requirement and comparability studies for Ammonia and Fluoride, ADHS will require the labs to follow the equivalency procedure given in the "pumpkin book" to document the comparability study as required in the Footnote 6, Table IB, List of Approved Inorganic Test Procedures, Methods Update Rule, March 12, 2007.

The Pumpkin book, Solutions to Analytical Chemistry Problems with Clean Water Act Methods, March 2007, can be accessed at the following website:

<http://www.epa.gov/waterscience/methods/files/pumpkin.pdf>

The Chapter 3, Flexibility to Modify an Analytical Method must be followed, to prove equivalency without distillation for the methods that require pre-distillations, for each discharge type.

3. The following methods have been Director Approved; the interested labs can now add these methods to their license by sending a request to our office:
- HACH 10029, m-ColiBlue24, for Coliforms- Total and *Eschericia Coli* in Drinking Water and *Eschericia Coli* in Wastewater.
  - Hardness by EPA Method 200.8, Rev 5.4, Sum of Ca and Mg as their carbonates, in wastewater.

Please Note: Part E of the web application,

[http://www.azdhs.gov/lab/license/app\\_parte.pdf](http://www.azdhs.gov/lab/license/app_parte.pdf), has the full list of all methods, with reference and method price, that have been Director Approved after our new rules went into affect on 12/5/06. Please remember that when requesting a new method, in order to avoid delays in certification, the laboratory should submit a current SOP, IDOC/MDL, and acceptable PE study results, where applicable.

4. When a method or an associated QC Chapter requires a MS and a duplicate, MS/MSD or a MS and a sample duplicate pair must be run; just running LCS/LCSD is not acceptable. In addition, the lab might want to run LCS/LCSD to comply with ADEQ Policy 0154. ADEQ Policy can be accessed at the following website:

<http://www.azdeq.gov/function/business/download/spike8.pdf>

5. **IR thermometer Calibration:**

EPA Manual for the Certification of Laboratories Analyzing Drinking Water, 5th edition, Chapter IV, Section 7.1.5 states:

When an infrared detection device is used to measure the temperature of samples, the device should be verified at least every six months using a NIST certified thermometer over the full temperature range that the IR thermometer will be used.

- This would include ambient (20-30°C), iced (4°C) and frozen (0 to -5°C).
- Each day of use a single check of the IR should be made by checking the temperature of a bottle of water at the temperature of interest that contains a calibrated thermometer.
- Agreement between the two should be within 0.5°C, or the device should be recalibrated.

NOTE: ADHS will accept a difference in agreement of 1.0°C.

6. Please note that ADHS Surveyors will continue to perform unannounced audits, when necessary. If you have any questions please contact Barbara Escobar, Environmental Program Manager at (602) 616-1945 or [escobab@azdhs.gov](mailto:escobab@azdhs.gov)
7. This is for your information-- NELAC Fields of Proficiency Testing with concentration ranges, acceptance limits, and PT Reporting Limits under [www.nelac-institute.org](http://www.nelac-institute.org) can be found at the following website:  
[http://www.nelac-institute.org/docs/pt/DW\\_FOPT\\_2008.xls](http://www.nelac-institute.org/docs/pt/DW_FOPT_2008.xls)
8. Please contact Prabha Acharya @ (602) 364-0734 or (480) 284-6869 or [acharyp@azdhs.gov](mailto:acharyp@azdhs.gov) for any technical or method related questions. The earlier Information Updates can be accessed @ <http://www.azdhs.gov/lab/license/tech/infoup.htm>